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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,914	02/07/2006	Jan Kristenson	132763 RC/MQ	5898

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EXAMINER	
MILLER, SAMANTHA A	

ART UNIT	PAPER NUMBER
3749	

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09/01/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,914	KRISTENSON ET AL.	
	Examiner	Art Unit	
	SAMANTHA A. MILLER	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Receipt of applicant's amendment filed on 12/11/2008 is acknowledged.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the parallel airflows are not shown in the drawings and must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-23 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 states the air supply device is, "the shape of parts of a circle or substantially a circle or primarily parts of a circle or substantially a circle" and "and uniformly distributed partial air streams characterized by parallel air streams". If the surface is not flat it is physically impossible for the air streams to be parallel.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

A. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristensson (5,167,577) in view of German patent (DE 2608792 A).

Kristensson teaches:

Claim 1: Air supply device (9)for obtaining zones of clean air in premises, said air supply device comprising at least one air permeable body (9) including at least one inner and at least one outer part (13, 16) of which the inner part (13) consists of or includes porous material (col.2 ll.50-55), at least one fan device (8a) is provided to bring air (15) (col.2 ll.41-49), which is to be supplied to the premises (2), to flow through the air permeable body at low air velocity at least one device (8c) is provided to see to that the air (15) supplied to the premises (2) has a lower temperature than the air in said premises (2) (col.2ll.18-19 and col.2 ll.38-40), the air permeable body, in cross section, has the shape of parts of a circle or substantially a circle or primarily parts of a circle or substantially a circle (Fig.1), and the combination that the inner part (13) consists of or includes porous material and the outer part (16) has passages (pores) and located close to each other (col.3 ll.5-25), for making a turbulent zone around the clean-air zone more narrow so that the turbulence around the clean-air zone hereby becomes less (col.3 ll.5-11 and col.3 ll.26-30) and wherein the air flow generated through said air permeable body.

Claim 5: All or almost all passages are of equal length (having the same thickness, Fig.1).

Claim 6: The passages are defined by tubes (cellular pores, col.3 ll.5-11) which are located close to each other and connected to each other.

Claim 7: The tubes are made of a plastic material (col.3 ll.5-11).

Claim 8: The tubes are made of a metallic material (col.3 ll.14-18, wire is a metal).

Claim 9: The tubes are made of a ceramic material (ceramic foam is a tough, plastic-like foam made from ceramics, a plastic-like foam is taught col.3 ll.5-11, http://en.wikipedia.org/wiki/Ceramic_foam).

Claim 10: The tubes are interconnected by fusing (the process of coating with the PVC material is fusing, col.3 ll.5-11).

Claim 11: The porous material of the inner part (13) is designed to permit filtration of air flowing through said porous material in order to obtain a low content of particles in the premises (filter material, col.3 ll.5-11).

Claim 12: The porous material of the inner part consists of foamed plastic with open cells (col.3 ll.5-11).

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Claim 14: The outer part (16) consists of a heat resistant material (col.3 ll.19-24).

Claim 15: The inner and outer parts (13, 16) are connected to each other (Fig.1).

Claim 16: The body is in cross section shaped as a semicircle or substantially as a semicircle (Fig.1).

Claim 17: The air permeable body is in cross section shaped as a quarter of a circle or substantially as a quarter of a circle (Fig.1).

Claim 18: The air permeable body is shaped as a spherical segment or as a substantially spherical segment (Fig.1).

Claim 19: The device which is provided to see to that the air (15) supplied to the premises (2) has a lower temperature than the air in said premises (2), is provided to

supply air at such temperature that said air descends to a low level in the premises (2) (col.2 ll.18-19 and col.2 ll.38-40).

Claim 20: Impure air is gathered in an upper zone (8) closest to the ceiling of the premises (2) (Fig.7), at least one air outlet (7) for impure air is provided at the ceiling (1) of the premises (2), and characterized in that the air permeable body (9) is located beneath the upper zone (8) such that substantially no impure air is coejected out of the upper zone (8) by the air streams (15) discharged by the air permeable body (9) (Fig.7) (col.2 ll.13-40).

Claim 21: The air permeable body (9) is located above a door (in ceiling) to the premises (2) and it is elongated and extends along at least a part of the width of the door (expanding entire room, Fig.7).

Claim 22: The device (8a) which is provided to see to that the air (15) supplied to the premises (2) has a lower temperature than the air in said premises (2), is a device for taking in cool air and/or includes a cooling device or is a cooling device (8c) for cooling air (col.2 ll.14-19).

Claim 23: The porous material retards air flow (as stated col.3 ll.14-18 air resistance through the porous material is formed) such that air flow is distributed over an entire inner surface of said inner part and a semi-laminar flow is generated at an inner surface of said outer part.

Kristensson discloses the invention above, however Kristensson does not teach rectilinear uniform in thickness tubes that are at least four times greater in length than width with an outer part thicker than the inner part with parallel air streams.

The German Patent teaches (please refer to English translation for correlating lines):

Claim 1. Tubes (3) which are substantially rectilinear, substantially uniform in thickness (Description, ll.18-19), said passages (3) further having a length which is at least four times greater than their width in order to generate rectilinear and uniformly distributed partial air streams characterized by parallel air streams (Fig.1).

Claim 2. The length of each passage (3) is 4-10 times greater than their width (Fig.1).

Claim 3. The length of each passage (3) is 4-10 times greater than their width (Fig.1).

Claim 4. The passages (3) have a circular or substantially circular (honeycomb shaped) cross section (Description, ll.18-19), and that they have the same or substantially the same diameter along their entire length (Fig.1).

Claim 13: The outer part (3) is thicker than the inner part (2) (Fig.1).

Therefore it would have been obvious to a person having ordinary skills in the art at the time the invention was made to have modified the air system of Kristensson in view of the teaching of the German Patent in order to reduce the exhaust velocity (German patent, ll.18-22).

B. Claims 1-23 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Kristensson (5,167,577) in view of the German patent (DE 2608792 A) in further view of KUMMERFELD (2002/0064038).

Kristensson in view of the German patent discloses the invention above including the circular air flow device, laminar flow, and the same air streams as disclosed by applicant's drawings and specification that is claimed as being parallel though not truly parallel. However, Kristensson in view of the German patent does not teach rectilinear uniform in thickness tubes that are with parallel air streams by the true definition of parallel air streams.

KUMMERFELD teaches:

Claim 1. A flat bottom surface of an air supply device (1) uniformly distributed partial air streams (through 16) characterized by parallel air streams (17) (para.0013) (Fig.1).

Therefore it would have been obvious to a person having ordinary skills in the art at the time the invention was made to have modified the air system of Kristensson in view of the teaching of the German Patent in view of the parallel air streams of KUMMERFELD in order to have uniformly supplied with germ-free air (KUMMERFELD, para.0004).

Response to Arguments

Applicant's arguments filed 12/11/2008 have been fully considered but they are not persuasive.

Applicant contends that the German Patent does not suggest laminar flow. However claims are afford the broadest reasonable interpretation and in this case regarding claims 23 which claims a semi-laminar flow the German Patent clearly states in the translation provided by applicant on pg.2 that says the device or “the clean air

intake is placed between the clean-room and the disturbance source and that the clean air is conducted radially against the disturbance sources". The disturbance source would be the impure air and the displacement flow is clearly described as turbulent-free air which to be radial and turbulent free is semi-laminar or smooth air flow.

Applicant contends that the German Patent does not teach parallel air streams since they are radial. However claims are afford the broadest reasonable interpretation. To be radial is to be directed outward and is not the opposite of being parallel, the German Patent is parallel which same as applicant's Fig.1 is for the air paths to not cross. The German Patent Fig.1 shows element 3 which is exact to applicant's Fig.1 element 13 which are all radial and parallel as defined by applicant.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samantha A. Miller whose telephone number is 571-272 9967. The examiner can normally be reached on Monday - Thursday 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Samantha Miller
Examiner
Art Unit 3749
8/21/2009

/Steven B. McAllister/
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